Linear, Certain Sites Only, Standard Genetic Code

Liver Rac GEF Map (1 > 3171) Site and Sequence

All 478 enzymes (No Filter)

Enzymes: Settings:

SHEET 1 OF 8 BOLLAG ET AL.

USSN: 09/079,812; FILED 5/15/98

218 109 436 327 763 654 Thr Arg Arg Lys Ser Ala Ser Asp Gin Trp Asn Thr Asp Asn Glu Pro Ala Lys Val Lys Pro Giu Leu Leu Pro Glu Lys Glu Glu Thr Ser Gin Ala Asp Gin Asp 11e TCACTCAAACCAGTGAAGCTTGGGAAAGTCATTGACCTCCAGTCGTTCTGCTGAGAAACATCTGGCTCTATTTCCATGGAGACCAGGGAATCTGAAGATTTGGAAAAAGA Asp Pro Gly Ala Gln Glu Met Ser Glu Ser Ser Thr Pro Gly Asn Gly Ala Thr Pro Glu Glu Trp Pro Ala Leu Ala Asp Ser Pro Thr Thr Leu Thr Glu Ala Leu CCAAGACAAAGACCTCATTGCCACATCCCAATTAAGAGAAATTCCATCTTCAATCGCTCCATAAGACGCAAAAGCAAAGGCCAAGGCCAGAGACAACCCCGAACGGAAC GCCAGCTGCCTGGCAGATTCACAGGACAATGGAAAATCTGTAAATGAGCCCCTGACCTTGAATATCCCCTGGAGCAGAATGCCTCCTTGCAGAACAGCAATGCAGACAG GCGGATGATCCACCCCATTCCCGCCGACTCCTGGAGAACCTCATTGAACAAATAGGGCTCCTGTATCAGGAATACCGAGATAAATCGACTCTCCAAGAAATCGAAACC Gin Asp Lys Giu Pro His Cys His Ile Pro Ile Lys Arg Asn Ser IIe Phe Asn Arg Ser IIe Arg Arg Lys Ser Lys Ala Lys Ala Arg Asp Asn Pro Giu Arg Asn AUCCAGGÁGCCCAGGAAATGAGTGAGTCGTCCTCCACCCCGGGAAATGGGGCCACGCCLGAGGAGTGGCCGGCCCTGGCCGACAGCCCCACCACGTCACCGAGGCCCT Met Glu Thr Arg Glu Ser Glu Asp Leu Glu Lys Ala Ser Cys Leu Ala Asp Ser Gin Asp Asn Gly Lys Ser Val Asn Glu Pro Leu Asn Ile Pro Trp Ser Arg Met Pro Pro Cys Arg Thr Ala Met Gin Thr Arg Met 11e His Pro 11e Pro Ala Asp Ser Trp Arg Asn Leu 11e Glu Gln 11e Gly Leu Leu Tyr Gin Glu Tyr Arg Asp Lys Ser Thr Leu Gin Glu 11e - Liver Specific Sequence a.a. 1-127 a.a. 216-226 Liver Specific Sequence - Liver Specific Sequence - Liver Specific Sequence ■a.a. 1-127 a.a. 1-127 a.a. 1-127 -Liver Specific Sequence ■a.a. 1-127

872 CCTACAGCCTGAGGAGATTAAGCTGCAGGAGGCCATCTTCGAGCTGGTCACTTCCGAGGCGTCCTACTACAACAGTCTGAACCTGCTCGTGTCCCACTTCATGGAGAAC CACCAGAGAGAGAAGATTOTGCCTGCTCAGTAACCCCCACTLAAGGTTCAACCTCTGGCAGGATCTTCCCGAGATCCGGAGAGCAGCGGGGGTGCTTGAGAT Pro Pro Glu Arg Lys Thr Leu Pro Gin lie Cys Leu Leu Ser Asn Pro His Ser Arg Phe Asn Leu Trp Gin Asp Leu Pro Giu lie Arg Ser Ser Gly Vai Leu Glu

-- Poly-Glutamate Region --

981

SHEET 2 OF 8 BOLLAG ET AL. USSN: 09/079,812; FILED: 5/15/98

GACCGGATAAGGAAGATCCTGCACCGGAGGGGCGCACATCCTCTCTCCAACGTCCTGGACGTGCTGGCTG	Gin Giu Arg TCATCCTG 1308	GGAGCTGG 1417	s Glu Leu CCCATCAT 1526	Pro Ile Ile ACCTCTTC 1635	yr Leu Phe GGACCAGG 1744	L Asp Gin CGTTGGAT 1853
Glu Arg lie Arg Lys lie Leu His Pro Ser Glu Ala His lie Leu Phe Ser Asn Val Leu Ala Val Ser Glu Arg Phe Leu Leu Glu Leu Glu His Arg TGGAGGAGAACATCGTCATCTGACGTGTGTGACATCGTGTACGTTATGCGGCCGACCACTTCTGTCTACATCACCTACGTCAGATCAGACCTACCAGGAGCG a.a. 273-456	Pet Glu Glu Asn lie Val lie Ser Asp Val Cys Asp lie Val Tyr Arg Tyr Ala Asp His Phe Ser Val Tyr lie Thr Tyr Val Ser Asn Gln Thr Tyr Gln Glu Arg GACCTATAAAGCAGCTGCTCCTCCTCCTCCTCCTCCTCCTCTCCTCTCCTCTCTCTC	Thr Tyr Lys Gin Leu Leu Gin Giu Lys Aig Aig Phe Arg Giu Leu Iie Aig Gin Leu Giu Leu Asp Pro Lys Cys Arg Giy Leu Pro Phe Ser Ser Phe Leu Iie Leu a.a. 273-456 a.a. 273-456 Dbi Homology Domain	Pro 17:0 Gin Arg Ile Thr Arg Leu Lys Leu Leu Val Gin Asn Ile Leu Lys Arg Val Giu Giu Arg Ser Giu Arg Giu Cys Thr Ala Leu Asp Ala His Lys Giu Leu AAATGGTGGTGAGGCGTGCAACGAGGGCGTCAGGAAAATGAGCCGCACGGAACAGATGATCAGCATCAGAAGAAGAAGATGGAGTTCAAGATCAAGTCGGTGCCCA *CAT	Giu Me. Vai Lys Ala Cys Asn Giu Gly Vai Arg Lys Met Ser Arg Thr Giu Gin Met Ille Ser Ille Gin Lys Lys Met Giu Phe Lys Ile Lys Ser Vai Pro Ille Ille CTCCCACTCCCGGTGGCTGGCTGCAGGAGCTGCCGGAATTTACCTCTTCCACCACTGCTGGCTG	Ser His Ser Arg Trp Leu Leu Lys Gin Giy Giu Leu Gin Gin Met Ser Giy Pro Lys Thr Ser Arg Thr Leu Arg Thr Lys Lys Leu Phe His Giu Ile Tyr Leu Phe CTGTTCAACGACTGCTGCTGCTGCGGCACTGCTGCGGGGACTGCTGCAGGACCAGGCTGGAGGACCAGGCTGGAGGACCAGGACCAGGACTGCTGCAGGAGGAGGAGGACCAGGACTGCTGCAGGAGGAGGAGGAGGACCAGGACTGCAACGAGCTGCAGGAGAACAAGAACAACAGAACAACAGAACAACAGAACAAC	Leu Phe Asn Asp Leu Leu Val Ile Cys Arg Gin Ile Pro Giy Asp Lys Tyr Gin Val Phe Asp Ser Ala Pro Arg Giy Leu Leu Arg Val Giu Giu Leu Giu Asp Gin GCCAGACGCTGGCCAACGTGTTCATCCTGCGGCTGCTGGAGAACGCAGATGACCGGGAGGCCACCTACATGCTAAAGGCGTCCTCTCAGAGTGAAGAGGTTGGAT

SHEET 3 OF 8 BOLLAG ET AL. USSN: 09/079,812; FILED: 5/15/98

le Leu Arg leu Leu Glu Asn Ala Asp Asp Arg Glu Ala Thr Tyr Met Leu Lys Ala Ser Ser Glu Met Lys Arg Trp Met GACCAAGTTTGTTTCGTTCACATCCCGGCTGCTGGACTGCCCCCAGGTCCCAGTGCGTGC
a.a. 487-605 a.a. 487-605 a.a. 608-680 a.a. 608-680
Phe Val Ser Phe Thr Ser Arg Leu Leu Asp Cys Pro Gin Val Gin Cys Val His Pro Tyr Val Ala Gin Gin Pro Asp ACATCCTGGACAAGACTGACGACGGGGGGGGAGCATCTTTGGCGAGCGTCGCACGACGACGAGGAGGGTGGTTCCCCAGCT
20/1 Src Homoloxy 3 Domain
GIU LEU THY LEU GIU LEU Ala Asp IIE LEU Asn IIE LEU ASP LYS THY ASP ASP GIY TYP IIE PHE GIY GIU AYG LEU HIS ASP GIN GIU AYG GIY TYP PHE PYO SEY CCATGACTGAGGAGATCTTGAATCCCAAGATCCGGTCCCAGAACCTCAAGGAATGTTTCCGTGTCCACAAGATGGATG
a.a. 608-680
Ser Met Thr Glu Glij lie Leu Ash Pro Lys lie Arg Ser Gin Ash Leu Lys Glu Cys Phe Arg Vai His Lys Met Asp Asp Arg Ser Gin Ash Lys Asp Arg Arg CAAGCTGGGCAGCCGGAATCGGCAATGACCCCCACCCAGGGGGCCCAGCGGGAGCAGGGCCTGCATGAGACCCCGACAGAAGGTGGGGGGGG
Lys Leu Gly Ser Arg Asn Arg Gln • 2289
CONTRACTOR AND THE CONTRACTOR AN
AI GLA III GIAAACAALAALAAGGII TCAGCAGTATTACACCACCTCCCTCATGCCTCCGAGGGGGTGGAAGGGGGT3GGACACT
CCAGGGCCCCCCATGCCCCTGGCCCCCAGGGATTGGAAGAGGCTCCCAAACCCAGAGTGTCCCTGTGGGAAGGCAGGC
GTCTTCTTTTACCTIGGAAGCAGTTAGAATTTACCAGGCACAGATGAGGCCGCCCTTGCCTGACGGAGCTTGATGAGCAGCCCTTGGTCTCCGGTTCCAGGACTGAGAG
CCCAUCTGCCTCTGCCCACCTTCCCCAGGCCTCTGCCAGCCTCTGGCTGCACGGTCAGGCCCTGCCCATGGCAGGCCTGCCAGAGCTTGGCTGGGAGCCCTCCCCCCCC
CICTGGCTCCCTGATGGGCTGGATGTAACTTGTGTCTTCTA 3CCCCTTAAGGAGCCCAGGTGTTTTAAGGAATGAATTGGTCACTGCATCTTGTATCGATTATGGTTCT
GAGAAAAGCAAATATCGGAAATTCCTGCAGCCCGGGAAATGGGGCCACGCCCGAGGAGTGGCCGGCC
TCCACCCCATTCCCGCCGACTCCTGGAGAAACCTCATTGAACAAATAGGGCTCCTGTATCAGGAATACCGAGATAAAAAAAA
CITTAATTAA 3161

SHEET 4 OF 8 BOLLAG ET AL. USSN: 09/079,812; FILED: 5/15/98

97		194		
Brain-Specific Sequence Map (1 > 198) Site and Sequence Enzymes: All 478 enzymes (No Filter) Settings: Linear, Certain Sites Only, Standard Genetic Code GAATTCCCGCAGCCCGTTAGTCGCCCCGACCCGAGCCCCGGCCCCAGGCCCCGCCCG	Glu Phe Pro Gln Pro Val Ser Arg Pro Arg Pro Ser Pro Gly Pro Arg Arg Gly Pro Arg Pro Gly Pro Ser Thr Arg Pro Ala Ala Asp Pro Met	CACCTCGGAAAGCGACGCGCGACTCGGCGGCGGGACACCTGCC	a.a. 1-66 Giu Leu Leu Ala Ala Ala Phe Ser Ala Ala Cys Ala Vai Asp His Asp Ser Ser Thr Ser Giu Ser Asp Ala Arg Asp Ser Ala Ala Gly His Leu Pro	

CGGC 198

SHEET 5 OF 8 BOLLAG ET. AL.

USSN: 09/079,812; FILED: 5/15/98

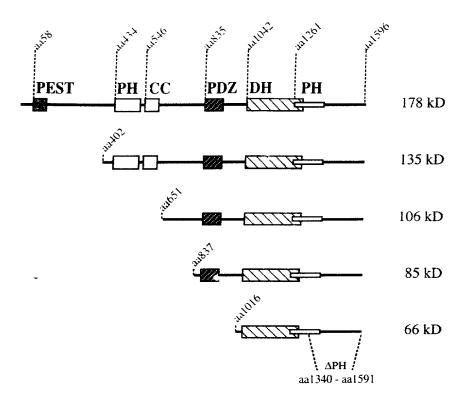


FIGURE 3

SHEET 6 OF 8 BOLLAG ET AL. USSN: 09/079,812; FILED: 5/15/98

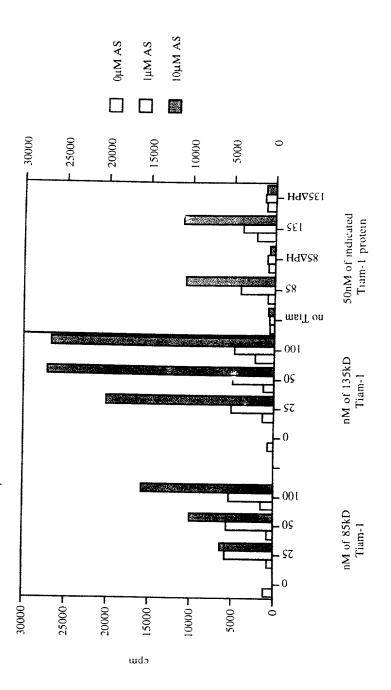
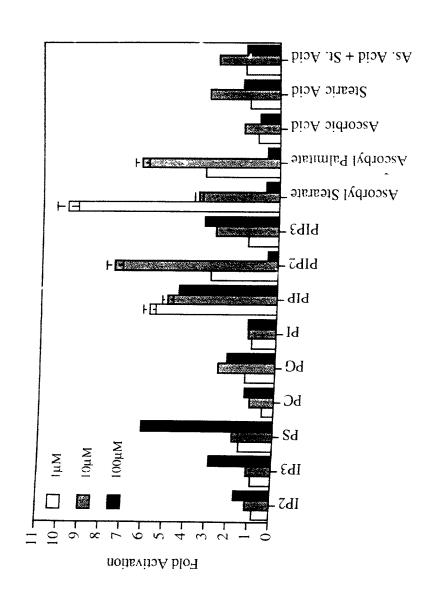


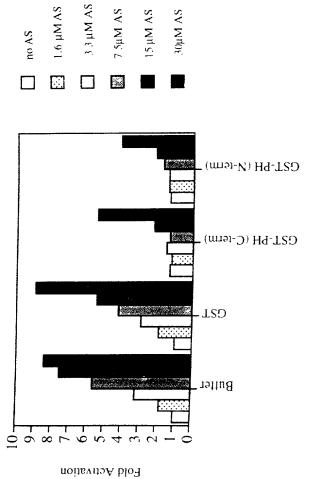
FIGURE 4

SHEET 7 OF 8 SOLLAGE ET AL. USSN: 09/079,812; FILED: 5/15/98



EIGNKE 2

FIGURE 6



N2SN: 09/079,812; FILED: 5/15/98